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Preparing for simulated microteaching lessons is a traumatic experience at best. In trying to make the experience both more valuable and less generative of negative feelings, a peer critiqueing component was added to the evaluation process in this program. After teaching three simulations, the mean of the attitude toward microteaching and the attitude toward peer critiqueing was found to increase by over 10 points on a scale of 1-100. Increases were greatest with those who made the highest grades. There was a signficant discrepancy in the final mean attitude ratings of the students of the experienced and inexperienced instructor. The results of this study indicate that it is possible for teachers to learn how to evaluate themselves given a set of criteria and that they may have a more positive attitude when rated by peers rather than by supervisors. (Author)

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USING PEER CRITIQUEING TO IMPROVE A MICROTEACHING PROGRAM

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ABSTRACT

Preparing for simulated microteaching lessons is a traumatic experience at best. In trying to make the experience both more valuable and less generative of negative feelings, a peer critiqueing component was added to the evaluation process in this program. After teaching three simulations, the mean of the attitude toward microteaching and the attitude toward peer critiqueing was found to increase by over 10 points on a scale of 1-100. Increases were greatest with those who made the highest grades. There was a significant discrepancy in the final mean attitude ratings of the students of the experienced and inexperienced instructor. The results of this study indicate that it is possible for teachers to learn how to evaluate themselves given a set of criteria and that they may have a more positive attitude when rated by peers than by supervisors.

USING PEER CRITIQUEING TO IMPROVE A MICROTEACHING PROGRAM

During the process of teacher education at the university level, students are often asked to teach lessons to their peers in preparation for later teaching experiences. This peer teaching process which has been variously referred to as video simulation or microteaching can be very important in the growth of prospective teachers. It enables them to prepare, teach and adjust lessons to meet the needs of identified students. The evaluative nature of microteaching, however, causes many students to become nervous and apprehensive about the experience. Therefore, in the microteaching laboratory at Texas A&M University, a peer critiqueing component was added in order to let students become more involved in and more aware of the evaluation process.

The program modification came about after a series of meetings of the entire microteaching instruction team. Student evaluations had indicated that many students had not liked the experience and were doubtful as to its value. It seemed to be the system which they disliked rather than the delivery for time after time there was elaborate praise for instructors as caring individuals. The students seemed to feel that the system was destructive because of the large number of criteria on which they might be graded down. On the other hand the instructors felt that they spent an inordinate amount of time viewing tapes in order to fill out rating forms which were often never analyzed by the students. Further they were aware that the students very often did not even view their own tape. The team felt that changes were indicated but that careful records Should be kept as to the efficacy of the new component.

At the time, the system involved groups meeting for four two-hours sessions with one instructor with each student presenting three lessons to a group of five to six peers. It was decided to change to grouping four to six students together with a microteaching instructor for one period a week for

thirteen weeks. Each student would teach three lessons to the other members of the group and be evaluated by the microteaching instructor on the predctermined set of criteria. However, the tapes would be shown directly after the lesson and the students required to evaluate themselves as well as others on a more generalized set of predetermined criteria. This component was designed to let students become more aware of the criteria involved in evaluation and also receive evaluative feedback from peers as well as the microteaching instructor.

METHOD

There were two areas of concern regarding the change: first, the effect on student attitudes and second, the ability of students to evalute themselves and others. Because peer critiqueing would enable students to become more involved in the evaluation process, it was hoped students would be better able to evaluate themselves and become less apprehensive about microteaching. In order to ascertain whether the desired effects were being obtained, the following research questions were asked.

1. Will students have a more positive attitude toward microteaching after completing three simulations and three peer critiqueing sessions as compared to their attitude at the beginning?
2. Will there be a relationship between grades and positive attitudes toward microteaching?
3. Will there be a relationship between grades and positive attitudes toward peer critiqueing?
4. Will there be a discrepancy between the attitudes expressed by the students of the experienced instructor and the students of the inexperienced instructor?

Sixty elementary and secondary education majors and two microteaching instructors were involved in this study over the course of thirteen weeks. A five question attitude survey was given to all sixty students before and after their microteaching experience to determine whether student attitudes changed during peer critiqueing. Using a predetermined list of criteria, students were also asked to rate themselves and their peers teaching short lessons. These student ratings were compared with instructor ratings to determine how close the students ratings came to that of the instructor.

RESULTS

The mean of the attitude toward microteaching in the premicroteaching rating was found to increase by 12.2 points on a scale of 1-100 by the end of the experience. The attitude toward peer critiqueing showed a similar increase of 11.5 points.

ATTITUDES ABOUT MICROTEACHING

VARIABLE	BEFORE		AFTER		DIFFERENCE
	MEAN	SD	MEAN	SD	
1. What is your attitude about doing microteaching?	64.8	2.71	77.0	2.44	12.2
2. What is your attitude about using peer critiqueing?	71.7	2.80	83.2	2.08	11.5
3. How helpful can peer critiqueing be in the professional growth of a teacher?	81.4	1.66	82.4	1.79	1.1
4. How would you feel about being observed and critiqued by other teachers when working in a school?	50.4	2.64	55.9	2.89	5.5

Figure 1

In asking whether or not these attitude variables were affected by the grades the student received, the responses were grouped by those who received an A and those who received a low B or C. Responses for students receiving a high B were attenuated. It was found that both groups started with similar attitudes (P=.1), both increased in positive outlook but there was a 10 point discrepancy at the end. (P=.1)

ATTITUDES CORRELATED WITH GRADES

VARIABLE	BEFORE			AFTER		
	Hi	Lo	P	Hi	Lo	P
1. What is your attitude about doing microteaching?	63.6	64.0	.950 S	77.2	67.1	.074 *
2. What is your attitude about using peer critiqueing?	72.1	69.0	.618	82.6	82.4	.963 S
3. How helpful can peer critiqueing be in the professional growth of a teacher?	81.0	80.5	.618	83.3	79.6	.643
5. How would you feel about being observed and critiqued by other teachers when working?	49.6	46.6	.590	58.5	47.7	.085 *

* difference significant at the .1 level

S closeness of scores significant at the .1 level

Figure 2

One of the instructors was an experienced teacher, had experience in microteaching, and was working on her doctorate. Another who was beginning her master's program, had relatively little public school experience and no prior

experience as a microteacing instructor. Both seemed similar in outgoing personality and both used the same lesson plans. It was found that the experienced instructor elicited greater gains in positive attitude ratings and that there was a significant discrepancy in the final mean attitude ratings of the students of thetwo instructors.

ATTITUDES CORRELATED WITH EXPERIENCE OF INSTRUCTOR

VARIABLE	EXPERIENCED			INEXPERIENCED		
	Prior to Micoteaching			After Microteachin		
	Exp	Inexp	P	Exp	Inexp	P
1. What is your attitude about doing microteaching?	65.7	66.1	.950 S	79.9	69.7	.043 *

	EXPERIENCED			INEXPERIENCED		
	Pre	Post	Chng	Pre	Post	Chng
1. What is your attitude about doing microteaching?	65.7	79.5	+13.8	66.1	69.7	+3.6
2. What is your attitude about using peer critiqueing?	70.2	85.1	+14.9	74.4	82.0	+7.6
3. How helpful can peer critiqueing be in the professional growth of a teacher?	79.2	84.2	+5.0	84.4	81.1	-3.3
4. How would you feel about being observed and critiqued by other teachers when working?	54.3	60.8	+6.5	49.3	52.0	+3.7

Figure 3

DISCUSSION

Microteaching can help prepare students for the classroom teaching process by enabling them to understand the process involved in teaching a successful lesson. The added peer critiqueing component provides students with the opportunity to be involved in the evaluation process, while the feedback allows the students to see their own growth over the course of time. In this age of accountability, the ability of teachers to evaluate themselves is becoming crucial. The results of this study indicate that it is possible for teachers to learn how to evaluate themselves given a set of criteria. Futher it shows that peer evaluation may tend to promote a more positive attitude especially under the direction of an experienced supervisor.

MICROTEACHING EVALUATION SHEET

I. Design

4 3 2 1 0 A. Lesson plan form completed
4 3 2 1 0 B. Objective written in "ABCD" format
4 3 2 1 0 C. Proposed set induction and closure incorporated
4 3 2 1 0 D. Instructional events consistent with behavioral objectives

II. Content

4 3 2 1 0 A. Substantive
4 3 2 1 0 B. Appropriate for grade level
4 3 2 1 0 C. Developed using teacher examples
4 3 2 1 0 D. Organized and in logical sequence
4 3 2 1 0 E. Appropriate for time
4 3 2 1 0 F. Understood by presenter without conceptual errors

III. Skills

A. Set induction

4 3 2 1 0 1. Caught attention of learners for the lesson
4 3 2 1 0 2. Focused attention of learners on main ideas
4 3 2 1 0 3. Linked lesson with previous experiences
4 3 2 1 0 4. Related purpose and relevance of lesson

B. Presentation techniques

4 3 2 1 0 1. Language usage
4 3 2 1 0 2. Vocal production and rate of delivery
4 3 2 1 0 3. Eye contact
4 3 2 1 0 4. Audio-visual aid
4 3 2 1 0 5. Confidence and interest of presenter
4 3 2 1 0 6. Stimulus variation (at least four)

gestures pausing changing sensory channels
focusing humor facial expressions movement

4 3 2 1 0 7. Interaction

C. Questioning

1. Factual questions

4 3 2 1 0 a. Development
4 3 2 1 0 b. Placement (distributed throughout)
4 3 2 1 0 c. Use

2. Higher-order questions

4 3 2 1 0 a. Development (related to content)
4 3 2 1 0 b. Placement (appropriate)
4 3 2 1 0 c. Use (for interaction)
4 3 2 1 0 3. Probing
4 3 2 1 0 4. Use of student examples

D. Reinforcement

4 3 2 1 0 1. Verbal
4 3 2 1 0 2. Delayed
4 3 2 1 0 3. Qualified
4 3 2 1 0 4. Non-verbal

4 3 2 1 0 E. Repetition (at least three)

simple spaced cumulative massed

F. Closure

4 3 2 1 0 1. Made definitive closure
4 3 2 1 0 2. Reviewed main points of lesson
4 3 2 1 0 3. Related content to subsequent learning
4 3 2 1 0 4. Had students restate directions for assignment

MICROTEACHING DESCRIPTOR SHEET

The following descriptors are provided to help define the specific criteria listed on the evaluation sheet for lesson one. The list is not exhaustive, nor are the items mutually exclusive.

I. Design

A. Lesson plan form completed

4. Form presented upon entering lab. All blanks filled with relevant/ pertinent information. The full intent of the lesson expressed. Appearance neat; grammar, spelling, and punctuation (mechanics) correct.
3. Form presented upon entering lab. Adequate information provided. Form neat and mechanics correct.
2. Form presented upon entering lab. Minimum amount of information provided. Form neat and mechanics correct.
1. Form presented upon entering lab. Inadequate information provided. Form lacked neatness; errors in mechanics.
0. No lesson plan prepared: therefore, no lesson presented. Lesson plan totally inadequate; student unprepared; lesson not given.

B. Objective written in "ABCD" format

4. All four components explicitly delineated. Expectations realistic. Objective well thought out and could be met at close of lesson. Objective consistent with single concept to be taught in lesson.
3. All four components delineated. Expectations realistic. Objective thoughtfully prepared. Objective matches concept.
2. All four components delineated.
1. Objective ambiguous; incorrectly arranged.
0. No objective stated; therefore, no lesson presented.

C. Proposed set induction and closure incorporated

4. Proposed set induction and closure thoroughly planned and fully implemented.
3. Proposed set induction and closure planned and implemented.
2. Proposed set induction and closure closely followed.
1. Substantial deviation between the stated and the actual set inductions closures.
0. No correlation between stated and actual set inductions and closures.

D. Instructional events consistent with behavioral objective

4. Each and every instructional event directly related to behavioral objective. Student "taught to the objective."
3. Most instructional events related to the behavioral objective.
2. Instructional events generally related to behavioral objective.
1. Instructional events circumvent behavioral objective.
0. Instructional events inconsistent with behavioral objective.

II. Content

A. Substantive

4. Topic meaningful and pertinent to specific discipline being addressed. Content consisted entirely of significant information and experiences. Topic found in essestial elements.
3. Topic wisely chosen, meaningful and pertinent; however, some superfluous information included as listed in Chapter 75.
2. Topic and content relevant but lacked depth.
1. Topic and content insignificantly related to the specific discipline.
0. Topic and content irrelevant to the specified discipline.

B. Appropriate for grade level
   4. Concept, vocabulary, and all instructional events prepared for the specific grade level being taught. Lesson developed with regard to prerequisite knowledge.
   3. Concept and instructional events geared to the correct grade level; vocabulary somewhat advanced or elementary for grade level found in essestial elements.
   2. Concept appropriate for grade level; vocabulary and/or instructional events somewhat advanced or elementary.
   1. Concept, vocabulary, and instructional events not suitable for grade level designated. Lesson development not correlated with prerequisite knowledge.
   0. Disregard for grade level to be addressed.

C. Developed using teacher examples
   4. Provided a variety of meaningful examples tailored to the needs of the students. All examples led to concept understanding. Examples presented across various sensory channels.
   3. Provided a variety of meaningful examples tailored to the needs of the students. Most examples led to concept understanding.
   2. Examples included led to concept understanding but lacked clarity and precision.
   1. Examples severly limited and vague; did not enhance student understanding.
   0. Incorrect or no teacher examples included.

D. Organized and in logical sequence
   4. Prior organization evident and content structured in meaningful manner with small incremental steps leading to concept understanding. Lesson flowed smoothly without diversions and developed in such a manner that all students could receive the intended learning.
   3. Content well organized and structured with tight development so that it flowed smoothly and communicated intended learning.
   2. Material presented in orderly, step-wise progression. Transition statements smooth and consistent.
   1. Sequencing faulty; either the learning steps out of sequence or too large for students to comprehend.
   0. No organization nor sequencing of content.

E. Appropriate for time
   4. Material effectively presented and reviewed within the allotted time (± 30 seconds).
   3. An appropriate amount of content presented for allotted time: no "padding" nor rushing through the lesson.
   2. Content adequately presented in time allotted.
   1. Too much or too little content for time allotted.
   0. A disregard for the relationship between content and time allotment.

F. Understood by presenter
   4. No conceptual errors. Clear, precise terms used to present concept. Thorough command of discipline's terminology. Students' questions answered willingly and with ease.
   3. No conceptual errors. Clear, precise terms used to present concept. Discipline's terminology used accurately. Students' questions answered willingly and accurately.
   2. No conceptual errors. Relevant terms used to present concept. Students' questions answered.
   1. Some conceptual errors. Vague terms used to present concept. Students' questions and responses addressed with hesitancy.
   0. Conceptual errors. Students' questions answered incorrectly or not at all.

III. Skills

A. Set Induction

1. Caught attention of learners for the lesson

4. Students' attention caught immediately with an interesting visual, story, anecdote, etc. Enthusiasm and positive tone exhibited.

3. Students' attention caught with an interesting visual, story, anecdote, etc. Positive tone used.

2. Students' attention caught but not immediately and/or enthusiasm lacking.

1. Students' attention not caught and set induction presented in unenthusiastic or negetive manner.

0. No attempt to catch students' attention.

2. Focused attention of learners on main ideas and objective

4. Informed students of the lesson's objective and what they were to do and/or achieve. Without delay related the attention getter to the point of the lesson.

3. Without delay informed students of the lesson's objective and what they were to do and/or achieve.

2. Clearly stated the topic of the lesson.

1. Made vague reference to topic of the lesson. Relationship between attention getter and lesson unclear.

0. Failed to state the objective of the lesson.

3. Linked lesson with previous experiences

4. Informed students of initial capabilities needed to successfully master the new lesson. Previously learned skills restated and elaborated upon as the foundation for the new content.

3. Informed students of initial capabilities needed to successfully master the new lesson.

2. Tied today's lesson with previous experiences or lessons.

1. Relationship between today's lesson and previous experiences weakly shown.

0. Did not attempt to link today's lesson with previous experience.

4. Related purpose and relevance of lesson

4. Explicitly stated the relevance of today's lesson and the implications it might have in the future.

3. Helped students discover relevant meaning in the lesson.

2. Made attempt to help students see relevance in the lesson.

1. Made vague reference to importance of the lesson.

0. Made no attempt to show relevance nor importance of the lesson.

B. Presentation Techniques

1. Language usage

4. Made no grammatical errors either in oral or written discourse. Paraphasing clearly provided to meet each student's needs. Used standard level of diction. Avoided use of phrases such as "you know." Waxed eloquent!

3. Made no grammatical errors either in oral or written discourse. Demonstrated ability to paraphrase content. Avoided use of slang (unless as a device for adding emphasis). Avoided use of "uh," "okay," "you know," etc.

2. Made few and only minor grammatical errors. Varied the wording during discourse.

1. Made excessive grammatical errors in speech and/or spelling, or used inappropriate level of diction.

0. Completed disregarded standard language usage.

2. Vocal production and rate of delivery
   4. Clearly enunciated presentation. Vocal pitch, volume, and pace adjusted so that student interest was enhanced.
   3. Vocal pitch, volume, and pace stimulated student interest.
   2. Vocal pitch, volume, and pace maintained student interest.
   1. Employed monotones, unvaried volume, and/or inappropriate pace.
   0. Pitch, volume, and/or pace uncomfortable and distracting.
3. Eye contact
   4. Had good attending behavior: all students were included in lesson through eye contact; eye contact maintained while students were responding to questions or statements.
   3. Had good attending behavior: casually referred to notes and maintained good eye contact.
   2. Looked at students while they were responding and scanned the class during presentation.
   1. Lost eye contact and had excessive reliance upon lesson notes.
   0. Did not establish eye contact.
4. Audio-visual usage
   4. Audio-visual served to heighten interest and understanding as an integral part of the lesson. Aid appropriately corresponded to lesson's objective. All students had access to audio-visual.
   3. Aid was used and appropriately corresponded with lesson's objective. All students had access to it.
   2. Minimal use made of audio-visual during lesson. Aid appropriately corresponded with lesson's objective. All students had access to it.
   1. Though presented, audio-visual not referred to during lesson. Aid had low correlation with lesson objective.
   0. Audio-visual aid not used.
5. Confidence and interest of presenter
   4. Without hesitancy, willingly accepted student responses and input Made presentation with ease and demonstrated ability to "think on your feet" in order to meet the needs of the students. Was enthusiastic and energetic.
   3. Responded to students in a natural, relaxed manner with obvious interest in both the subject matter and the student.
   2. Responded to students appropriately in a matter-of-fact matter, but lacked feeling.
   1. Was hesitant in delivery. Seemed uncomfortable in relationship with the students. Showed little enthusiasm toward lesson.
   0. Was extremely hesitant and reticent. Seemed bored with lesson.
6. Stimulus variation (at least four)
   4. Whenever appropriate, varied the stimuli thereby enhanced the students' interest and attention.
   3. Often varied the stimuli thereby maintained the students' interest and attention.
   2. Used at least four different kinds of stimuli during presentation.
   1. Made limited use of varied stimuli and/or used inappropirate variations.
   0. Did not vary stimuli.
7. Interaction
   4. Utilized and effectively mixed all three types of interaction styles throughout presentation.
   3. Utilized all three types and varied interaction styles throughout lesson.
   2. Utilized at least two types appropriately throughout lesson.
   1. Utilized two types of interaction styles in one part of lesson.
   0. Made no attempt to vary interaction styles: teacher-directed only.

III. Skills

C. Questioning

1. Factual questions

a. Development (Well phrased)

4. Knowledge/comprehension questions directly related to material presented, carefully prepared, and clearly phrased.
3. Knowledge/comprehension questions closely related to content, well thought out, and clearly phrased.
2. Knowledge/comprehension questions related to content and clearly phrased.
1. Knowledge/comprehension questions loosely related to content and/or not clearly phrased.
0. Knowledge/comprehension questions not related to content or not included.

b. Placement (Distributed throughout)

4. Knowledge/comprehension questions placed strategically throughout lesson: at the exact moments when learning could be enhanced.
3. Knowledge/comprehension questions well placed throughout lesson.
2. Knowledge/comprehension questions posed at various times within lesson.
1. Knowledge/comprehension questions few and poorly distributed within lesson.
0. Knowledge/comprehension questions not included.

c. Use (Recalled information)

4. Knowledge/comprehension questions specifically recalled vital lesson information from students. These flowed smoothly as integral parts of lesson. Adjusted the pace of lesson based on students' responses and ideas; allowed ample time for students' responses.
3. Knowledge/comprehension questions recalled vital lesson information from students. Questions flowed smoothly, and ample time was allowed for responses. Adjusted pace of lesson based on students' responses and ideas.
2. Knowledge/comprehension questions used for recall of portions of lesson. Student responses indicated learning. Sufficient time allowed for responses.
1. Knowledge/comprehension questions irrelevant, forced, and elicited inaccurate information. Did not wait for students to respond.
0. Did not incorporate knowledge/comprehension questions.

2. Higher-Order Questions
   a. Development (Related to content)
      4. Application, analysis, synthesis, evaluation questions directly related to content, were well thought out and clearly phrased. These grew out of previous questioning when appropriate.
      3. Application. . .questions closely related to content, well thought out, clearly phrased.
      2. Application. . .questions related to content and clearly phrased.
      1. Application. . .questions loosely related to content and/or not clearly phrased.
      0. Application. . .questions not related to content or not included.
   b. Placement (Appropriate)
      4. Application. . .questions placed strategically throughtout lesson: at exact moments when learnings could be enhanced.
      3. Application. . .questions well placed throughout lesson.
      2. Application. . .questions posed at various times within lesson.
      1. Application. . .questions few and poorly distributed in lesson.
      0. Application. . .questions not included.
   c. Use (For interaction)
      4. Application. . .questions perpetuated student interaction, flowed smoothly as integral parts of lesson. Adjusted pace of lesson based on students' responses and ideas.
      3. Application. . .questions encouraged student interaction, flowed smoothly, and ample time was allowed for responses. Pace of lesson adjusted based on students' responses.
      2. Application. . .questions asked so that students' responses indicated learning. Sufficient time allowed.
      1. Application. . .questions not asked in manner that would elicit student interaction and learning. Sufficient time not allowed for responses.
      0. Application. . .questions not asked.
3. Probing
   4. Probing stimulated student interest and thinking, clarified learning, used to redirect questioning to other students.
   3. Probing encouraged interest and thinking, clarified learning.
   2. Probing maintained interest and encouraged thinking, clarification attempted.
   1. Probing tedious and confusing, clarification not attempted.
   0. Probing not used.
4. Used student examples
   4. Students given numerous opportunities to contribute their own examples of the concept throughout lesson. Drew upon students' experience to enhance meaning and interest.
   3. Students given opportunity to give new examples of the concept within body of lesson. Used students' experiences to illustrate concept.
   2. Students were requested to give examples of the concept and to contribute their own experiences to illustrate it.
   1. Students were rarely given opportunity to provide examples of the concept. Student examples were not incorporated into the lesson.
   0. Student examples were not requested; those given were not used.

III. Skills

D. Reinforcement

1. Verbal

4. Sensitively used minimum of four different positive verbal responses to students' contributions. These flowed smoothly and immediately followed student contributions.
3. Appropriately used minimum of four different positive verbal responses immediately following student contributions.
2. Used minimum of four verbal responses.
1. Did not use the required number of verbal responses, and/or reinforcers lacked enthusiasm and sensitivity, were forced, and did not "fit" the situation.
0. Lacked verbal reinforcement of student responses.

2. Delayed

4. Referred back to student by name, repeated content of student contribution, tied that contribution to the current discussion in a positive manner.
3. Referred back to student by name, in general used the student contribution.
2. In general, used a contribution made earlier.
1. Made vague reference to previous student contribution.
0. Did not include delayed reinforcement.

3. Qualified

4. Immediately, clearly, and sensitively acknowledged correct portions of student's response and directed the student to amend the incorrect portions.
3. Responded favorably when student gave partially correct contribution and probed for correction.
2. Confirmed correct portions of student's response.
1. Emphasis not on correct portion of the student's response.
0. Did not qualitatively acknowledge student's partially correct response.

4. Nonverbal

4. Used a minimum of three different overt physical gestures in positive response to student contribution.
3. Used a minimum of three different gestures in positive response to student contributions.
2. Used three gestures in positive response to student contributions.
1. Used fewer than three gestures in response to student contributions, was not positive when responding nonverbally.
0. Did not use nonverbal reinforcement.

. Closure and Completeness of Communication

1. Made definitive closure
   4. Used specific phrase to signal closure. Additional information not given. Closure concise and succinct. The actual end of the lesson was apparent.
   3. Made a definite break between the lesson and the review. Additional information was not given. Closure was concise.
   2. Gave clear signal of approach of review. Additional information not given. Closure made without hesitancy.
   1. Vaguely indicated closure, gave new information, or ended lesson indecisively.
   0. Did not attempt to close definitively nor to review the lesson.
2. Gave students opportunity to demonstrate concept understanding
   4. Concept understanding checked throughout lesson to determine completeness of communication with all students at each point of lesson.
   3. Concept understanding checked at various times and clarifications made as needed.
   2. Concept understanding checked during presentation not just in closure.
   1. Concept understanding checked only at one time in lesson.
   0. Concept understanding not checked for.
3. Reviewed main points of lesson
   4. Encouraged students to participate actively in review. Led students in reviewing to be concise and to remain on task. Main points of lesson were woven into a coherent summary.
   3. Effectively blended the teacher-led and the student-initiated reviewing. Main points covered thoroughly.
   2. Gave students some opportunity to review main points of lesson.
   1. Directed the review without student involvement.
   0. Made no attempt to review main points of lesson.
4. Related content to subsequent learning
   4. Showed the relationship between today's lesson and future learnings. Stressed the interrelatedness of knowledge. Laid groundwork for future lessons to show students the direction of the learning.
   3. Made students aware that today's lesson links directly to subsequent learnings. Previewd "coming attractions."
   2. Mentioned future learning experiences that directly relate to today's lesson.
   1. Did not clearly relate nor sequence learning.
   0. Made no attempt to link to future learning.
5. Had students restate directions for assignment.
   4. Clearly explained assignment and had more than one student restate it. Encouraged and answered questions regarding assignment.
   3. Clearly explained assignment and had at least one student restate it. Answered any questions.
   2. Gave assignment and asked class if there were any questions.
   1. Gave assignment and asked class if they understood.
   0. Did not make assignment or did not check for understanding.